

JUN 09 2006

Application No. 09/911,840

AMENDMENTS TO THE CLAIMS

A detailed listing of all claims that are, or were, in the present application, irrespective of whether the claim(s) remains under examination in the application are presented below. The claims are presented in ascending order and each includes one status identifier. Those claims not cancelled or withdrawn but amended by the current amendment utilize the following notations for amendment: 1. deleted matter is shown by strikethrough for six or more characters and double brackets for five or less characters; and 2. added matter is shown by underlining.

1-14 (Canceled)

Please add new claims 15-28 as follows:

15. (New) In an automatic meter reading (AMR) system comprising a plurality of utility meter end point modules that generate and transmit utility consumption data, and at least one AMR system receiver configured to receive consumption data transmitted by the end point modules by way of frequency hopping spread spectrum transmission, a method of communicating between a first end point module and the receiver, the method comprising:

maintaining, at the receiver, transmission profile information for the first end point module that represents at least a frequency hopping pattern used by the first end point module;

transmitting, by the first end point module, a first message, wherein the first message includes an identifier of the first end point module;

receiving, by the receiver, the first message;

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determining, by the receiver, an identity of the first end point module based on the identifier of the first message to obtain a first determined identity;

determining, by the receiver, frequency hopping information associated with a future second transmission by the first end point module based on the first determined identity of the first end point module to obtain a first set of determined frequency hopping information;

predicting, by the receiver, whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information; and

responding to a predicted unsuccessful future second transmission by adjusting the communicating between the first end point module and the receiver.

16. (New) The method of claim 15, further comprising:

transmitting, by a second end point module, a third message, wherein the third message includes an identifier of the second end point module;

receiving, by the receiver, the third message;

determining, by the receiver, an identity of the second end point module based on the identifier of the third message to obtain a second determined identity; and

determining, by the receiver, frequency hopping information associated with a future fourth transmission by the second end point module based on the determined second identity of the second end point module to obtain second set of determined frequency hopping information;

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wherein the step of predicting whether the future second transmission will be unsuccessful includes predicting whether any transmission collision will occur between the future second transmission by the first end point module, and the future fourth transmission by the second end point module.

17. (New) In an automatic meter reading (AMR) system comprising a plurality of utility meter end point modules that generate and transmit utility consumption data messages, and at least one AMR system reader configured to receive consumption data messages transmitted by the end point modules, a method of operating a first reader, the method comprising:

determining a message arrival time for a first message to be transmitted by a specific end point module; and

activating a receiver of the first reader according to a predetermined time duration in advance of the determined arrival time.

18. (New) The method of claim 17, wherein the step of determining is based on an end point module message arrival list stored in the reader.

19. (New) The method of claim 17, wherein the step of activating the receiver according to the predetermined time duration includes activating the receiver within one second of the determined message arrival time.

20. (New) The method of claim 17, further comprising:

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transmitting the first message by a first end point module on a first frequency hopping spread spectrum (FHSS) channel; and

prior to the step of transmitting, determining, by the first reader, that the first message will be arrive on the first FHSS channel.

21. (New) The method of claim 17, further comprising:

initializing the first reader, including establishing logic for handling any missed end point module messages.

22. (New) An automatic meter reading (AMR) system receiver for receiving radio transmissions from a plurality of utility meter end point modules that generate and transmit utility consumption data by way of frequency hopping spread spectrum transmission, the AMR system receiver comprising:

a radio receiver; and

a controller programmed to:

maintain transmission profile information for ones of the plurality of end point modules, the transmission profile representing at least a frequency hopping pattern used by at least a first end point module;

operate the radio receiver to engage in radio communications with the first end point module, wherein the radio communications include a first message originated by the first end point module that includes an identifier of the first end point module;

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determine an identity of the first end point module based on the identifier of the first message to obtain a first determined identity;

determine frequency hopping information associated with a future second transmission by the first end point module based on the first determined identity of the first end point module to obtain a first set of determined frequency hopping information;

predict whether the future second transmission will be unsuccessful based on the first set of determined frequency hopping information; and

respond to a predicted unsuccessful future second transmission by adjusting the radio communications with first end point module.

23. (New) The AMR system receiver of claim 22, wherein the AMR system receiver is of a type selected from the group consisting of: a repeater, and a base unit.

24. (New) An automatic meter reading (AMR) system receiver for receiving radio transmissions from a plurality of utility meter end point modules that generate and transmit utility consumption data by way of frequency hopping spread spectrum transmission, the AMR system receiver comprising:

a radio receiver; and

a controller programmed to:

determine an arrival time for a first transmission to be transmitted by a specific end point module; and

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activate the receiver according to a predetermined time duration in advance of the determined arrival time.

25. (New) The AMR system receiver of claim 24, wherein the AMR system receiver is of a type selected from the group consisting of: a repeater, and a base unit.

26. (New) The AMR system receiver of claim 24, wherein the controller maintains an endpoint module transmission arrival list.

27. (New) The AMR system receiver of claim 24, wherein the controller is programmed to activate the radio receiver according to the predetermined time duration such that the radio receiver is activated within one second of the determined arrival time.

28. (New) The AMR system receiver of claim 24, wherein the controller is configured with logic for handling any missed end point module transmissions.